

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

**THE TRUSTEES OF
PURDUE UNIVERSITY,**

Plaintiff,

v.

**STMICROELECTRONICS
INTERNATIONAL N.V.
AND STMICROELECTRONICS, INC.**

Defendants.

Civil Action No. 6:21-cv-00727-ADA

JURY TRIAL DEMANDED

**PLAINTIFF’S RESPONSE TO DEFENDANTS’ OBJECTIONS TO
CLAIM CONSTRUCTION ORDER**

Plaintiff, The Trustees of Purdue University (“Purdue”), urges the Court to adopt Judge Gilliland’s construction of Claim 9 of U.S. Patent No. 7,498,633 (“the ’633 Patent”) as detailed during the *Markman* hearing and in the *Markman* Order. Dkt. 86; Dkt. 220 (“*Markman* Order”). Defendants STMicroelectronics International NV and STMicroelectronics, Inc., (collectively, “ST”), reiterate the same arguments that they raised during claim construction. Judge Gilliland’s construction is correct for the reasons Purdue raised in its earlier arguments (Dkts. 70, 76) and for the reasons below.¹

LEGAL STANDARD

“A magistrate judge’s determination regarding a nondispositive matter is reviewed under the ‘clearly erroneous or contrary to law’ standard.” *Daedalus Blue, LLC v. Microsoft Corp.*, No. W-20-CV-01152-ADA, 2022 WL 3031076, at *1 (W.D. Tex. Aug. 1, 2022). *See also* Fed. R. Civ.

¹ Judge Gilliland adopted ST’s construction that the preamble is limiting. Purdue did not object to this construction.

P. 72(a). The “clearly erroneous” standard applies to the magistrate judge’s findings of fact. *Baylor Health Care Sys. v. Equitable Plan Serves.*, 955 F. Supp. 2d 678, 689 (N.D. Tex. 2013). That standard is a “highly deferential” one; the Court must affirm the Magistrate’s decision unless “on the entire evidence [the Court] is left with a definite and firm conviction that a mistake has been committed.” *Gomez v. Ford Motor Co.*, 2017 WL 5201797, at *2 (W.D. Tex. April 2017) (quoting *United States v. United States Gypsum Co.*, 333 U.S. 364, 395, 68 S. Ct. 525, 92 L.Ed. 746 (1948)) (internal quotations omitted). “In other words, even were the Court disposed to differ with the Magistrate, such a difference of opinion would not alone entitle it to reverse or reconsider the Order.” *Daedalus Blue, LLC*, 2022 WL 3031076, at *1. A magistrate’s legal conclusions are reviewed de novo under the less stringent “contrary to law” standard. *Id.* Courts review “claim construction and interpretations of intrinsic evidence de novo and any subsidiary factual findings for clear error.” *Littelfuse, Inc. v. Mersen USA EP Corp.*, 29 F.4th 1376, 1379 (Fed. Cir. 2022).

ARGUMENT

First, ST objects to the Court replacing the full preamble language of “a double-implanted metal-oxide semiconductor field-effect transistor” with “MOSFET” in its analysis. Dkt. 229 at 2. ST argues that there are different types of MOSFETs and Claim 9 only involved a “double-implanted metal-oxide semiconductor field effect transistor.” In analyzing the preamble, the Court explicitly concluded that “‘double-implanted’ recites essential structure.” Dkt. 220 at 224. The Court explained, “double-implanted MOSFET is a specific type of MOSFET and one that may have different electrical characteristics as compared to a MOSFET that does not use double-implantation.” Dkt. 220 at 24. Thus, no meaning was lost in the Court’s use of the term MOSFET, rather than the full language of the preamble.

Second, ST argues that “less than about three micrometers,” is indefinite because a person of ordinary skill in the art (“POSITA”) would not understand the upper or lower limits of the term. As an initial matter, ST urged adoption of the term’s plain meaning in its IPR petitions and did not have any trouble understanding the term then. ST used “less than about three micrometers” in its petition for IPR review. Dkt. 56-1 at 80. Additionally, the Court relied on Purdue’s expert declaration, provided by Dr. Ishwara Bhat, to conclude that “a POSITA would understand that ‘about’ is not indefinite, but rather, at minimum, was intended to account for well-known fabrication variation.” Dkt. 220 at 30. Dr. Bhat attested that “a variation of $\pm 10\%$ during manufacturing is expected when numerical values are used for the JFET regions of SiC DMOSFETs.” Dkt. 76-1 at 5. The Court also noted that the term “about” is common in patent law, and the specification provides additional design guidance. Dkt. 220 at 30–31.

ST is incorrect that the Court ignored the purpose that the “less than about three micrometers” high-end limit on JFET width is supposed to achieve. As ST concedes, the Court explained that the specification “provides design guidance and objectives including optimizing the width to reduce the on-resistance and the electric field, and ensuring good forward current conduction and withstanding reverse blocking voltage.” Dkt. 220 at 30–31. The Court’s analysis is consistent with Dr. Bhat’s explanation:

The ’633 Patent specification clearly states that the JFET width is optimized according to two objectives: (1) decreasing on-resistance and (2) reducing the electric field in the oxide above the JFET region. ’633 Patent at 6:21-27, 6:45-50. In addition to these stated objectives, a true POSITA would know that there are mandatory objectives for SiC JFET-region design, such as ensuring good forward current conduction and withstanding reverse blocking voltage.

Dkt. 76-1 at 6. The Court appropriately considered the purpose of the limitation and credited Dr. Bhat’s reading of the specification. The Court analyzed the meaning of “about” in “the technological facts of the particular case.” *Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351,

1368 (Fed. Cir. 2008) (quoting *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1217 (Fed. Cir. 1995)). “Reasonable certainty” does not require “absolute or mathematical precision.” *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1381 (Fed. Cir. 2015) (citation omitted). The Federal Circuit has “refused to require that a patent disclose details as to every possible variable that may affect the calculation of a measured value or range of values recited in a patent claim,” especially where there “is expert testimony to support the view that a skilled artisan would have understood how to handle those parameters when reading the claim.” *Pac. Coast Bldg. Prod., Inc. v. CertainTeed Gypsum, Inc.*, 816 F. App’x 454, 459 (Fed. Cir. 2020). This is not a situation in which the patent coins a new characteristic but does not explain “what the value represents or how to consistently and reproducibly measure this new characteristic” or where there are numerous measurement methods in the industry which yield different results. *Id.*; *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1340 (Fed. Cir. 2015).

As for the lower limit, ST argues that the Court “did not point to anything in the record (intrinsic or extrinsic evidence) that would allow a POSITA to determine the lower boundary of the claimed range.” Dkt. 229 at 3. But the Court explained that the minimum must be “the minimum size that can be manufactured.” Dkt. 220 at 30. As Purdue explained during claim construction, a POSITA would understand that “less than about 3 micrometers” does not extend to a width of zero micrometer because that is simply absurd. Dkt. 70 at 17. A JFET of zero width “could not be a DMOSFET at all.” Dkt 76-1 at 8. In fact, ST conceded this absurdity. Dkt. 66 at 16 n.8. (“And if the JFET was reduced to zero width, the device would no longer be a ...MOSFET.”).

The Court did not err in concluding that the term “less than about three micrometers” is not indefinite. Dkt. 220 at 31.

CONCLUSION

The Court should adopt Judge Gilliland's correct construction of the '633 Patent terms.

Dated: January 11, 2023

Respectfully submitted,

/s/ Michael W. Shore

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CERTIFICATE OF SERVICE

Pursuant to the Federal Rules of Civil Procedure and Local Rule CV-5, I hereby certify that all counsel of record who have appeared in this case are being served with a copy of the foregoing via the Court's CM/ECF system on January 11, 2023.

/s/ Michael Shore

Michael W. Shore